The Commonwealth of Massachusetts

DIVISION of STATE COLLEGES

WORCESTER STATE COLLEGE

1969

SUMMER SESSION

JUNE 30— AUGUST 8

Program of Continuing and Graduate Studies

Tel: 791-1405 or 756-5121

FACULTY

JOHN F. EAGER, B.S., Ed.M., Associate Director of Program of Continuing Studies
WALTER BUSAM, A.B., A.M., Ph.D.
JACQUELINE G. CASALE, B.A., M.A.
PAUL DAVIS, B.S., Ed.M.
MARY T. DOLPHIN, A.B., Ed.M.
ALFRED F. EDDY, A.B., A.M.
PAUL J. EDMUNDS, A.B., A.M., Ph.D.
LEONARD F. FARREY, B.S., Ed.M.
ROBERT W. GOSS, B.S., Ed.M., Ed.D.
RUTH GRIFFITHS, B.S., A.M., Ed.D.
BERNARD J. GUARINI, A.B., A.M.
ROSE D. GUERIN, A.B., M.A.
MARY T. HAYES, B.S., Ed.M., Ed.D.
PAUL A. HOLLE, A.B., M.S., Ph.D.
GEORGE T. JOSEPH, B.S., Ed.M.
FRANCIS L. JONES, A.B., A.M., Ph.D.
WILLIAM D. JOYCE, A.B., M.S.
ABRAM KAMINSKY, B.M.E., M.M.E.
WILLIAM K. MASTERSON, A.B., A.M., M.S.
PAUL J. McCARRON, B.S., Ed.M.
ROBERT F. McGRAW, B.S., M.A.T.
MELVIN MERKEN, B.S., A.M., Ed.D.
ALBERT G. MITCHELL, B.S., A.M.
KATHRYN R. O'DONNELL, B.S., A.M.
J. FRANCIS O'MARA, A.B., Ed.M., M.A., Ph.D.
PAUL F. O'NEIL, A.B., Ed.M.
VINCENT PICCOLO, A.B., M.S.
ROBERT W. REDDING, B.S., M.S.
JOSEPH W. RIORDAN, A.B., A.M., Ed.M., Ph.D.
EVELYN ROBINSON, A.B., Ed.M., M.S.
JOSEPH P. SCANNELL, B.S., Ed.M.
JOSEPH A. SHEA, A.B., A.M., Ph.D.
HELEN SMITH, A.B., B.S.
G. FLINT TAYLOR, A.B., Ed.M., Ph.D.
ANTHONY THURSTON, A.B., M.A.T.
MANUEL ZAX, A.B., A.M., Ed.D.

GENERAL INFORMATION

The courses announced in this bulletin are offered by the Division of State Colleges in cooperation with the Worcester State College. The Division of State Colleges reserves the right to cancel any course which does not have a minimum of 20 enrollments.

Both graduate and undergraduate courses are offered. Courses carrying undergraduate credit only are numbered in the 7- series; courses carrying both graduate and undergraduate credit are numbered in the 8- series; courses carrying graduate credit only are numbered in the 9- series.

REGISTRATION

Registration should be made on May 27th through June 30th from 8:30 A.M. to 4:30 P.M. at the Worcester State College Graduate Office, Room S-112 Science-Laboratory Building. Registration must be completed there.

ALL FEES, REGISTRATION AND TUITION, MUST BE PAID AT THE TIME OF REGISTRATION. NO EXCEPTION TO THIS REGULATION WILL BE CONSIDERED. Fees must be paid by check or money order, made payable to the Worcester State College, Program of Continuing Studies. Cash will not be accepted. Assignment to classes which are or might be sectioned, or assignment to classes with maximum registrations, will be made in the order of completed registrations.

1. The Tuition fee for residents of Massachusetts is $18.00 per semester hour of credit; for non-residents $25.00 per semester hour of credit; for auditors, $11.00 per semester hour.
2. LATE REGISTRATION FEE — (Required for all, including veterans, after first class meeting) $2.00.
3. Change of course fee — Payable for any change of registration after the first class meeting except when a course is cancelled, $2.00.
4. All students in each semester, including veterans must pay a $2.50 registration fee per semester when making out the course registration forms. UNDER NO CIRCUMSTANCES WILL ANY OF THE REGISTRATION FEES BE RETURNED.

VETERANS

Any resident of Massachusetts who has served in any branch of the armed services for at least 90 days, one of which must have been served either between September 16, 1940, and December 31, 1946, or between June 25, 1950 and January 31, 1955, and who has a discharge other than dishonorable may enroll without charge for instruction in any course here offered within the established limitation of 120 semester hours. To establish his eligibility the veteran must present his discharge (or photostatic copy) or certificate of satisfactory service in the case of officers, together with proof of residence in advance of the opening date of class meeting.

All veterans who come under the new cold war G.I. Bill must pay their tuition to the college. These veterans are treated as non-veterans for registration purposes, are reimbursed by the Veterans' Administration. *NOTE: If this is your first enrollment, you must contact your Veterans' Administration Office for information on reimbursement. If you have been enrolled in courses at Worcester State College, you, upon completed registration here, will be reenrolled by the Office of Continuing Studies for the veterans' reimbursement.

Veterans who have served at least 180 days between February 1, 1955 and the termination of the Viet Nam emergency, have had service in Viet Nam, and whose service was credited to Massachusetts are also exempt from paying tuition when they present a certificate of Exemption of Tuition from the Mass. Dept. of Education (Miss Mary E. McKay, Dept. of Education, 182 Tremont St., Boston, Mass.). To obtain this certificate the veteran first presents a photostat of his discharge papers to the State Adjutant General, Room 184, State House, Boston, Mass. and obtains certification that he meets the necessary requirements and that his service is credited to Massachusetts. This document, in turn, is submitted to the State Department of Education as indicated above. The State Department then issues the Certificate of Exemption from Tuition which must be presented at the time of registration to Worcester State College.

CREDIT

Regulations and requirements for degree study may be obtained at the Office of the Director of Continuing Studies, Worcester State College. It is urgently recommended that the guidance and advice of the Director and your faculty advisor in your Area of Concentration, wherein you must have 5 approved courses — effective September 1966 — be sought and faithfully followed in planning a program of study. For teachers in service, a maximum of six semester hours of credit per semester may be credited toward a degree.

The GRADUATE RECORD EXAMINATION, REQUIRED for all graduate degree students will be conducted at Worcester State College on Saturday, July 12, 1969. The bulletin of information and application blanks can be secured at the Director's Office, Room S-112 Science-Laboratory Building at Worcester State College. Registration through Educational Testing Service, Princeton, New Jersey should be completed three weeks prior to the test.

The degree of Master of Education is awarded at the State Colleges at Boston, Bridgewater, (including Hyannis Summer Session), Fitchburg, Framingham, North Adams, Salem, Westfield, and Worcester. Graduate courses in partial fulfillment of the requirements for this degree may be offered from time to time in the other State Colleges and the Massachusetts College of Art, subject to advance approval by Worcester State College.

Students must park in the Student Parking Areas behind the Science-Laboratory Building or the side and rear of the Gymnasium-Library Building.

The Graduate Comprehensive Examination will be conducted on Friday, July 18, 1969 at 2:00 P.M.

POST Ed.M. STUDENTS MUST RECEIVE THE HONOR GRADES OF A OR B FOR CREDIT.

College graduates interested in our SS 1969 Secondary Teacher Preparation Workshop (June 30—August 8, 1969) should submit credentials for interview in early Spring.

All degree candidates must file Intention to Graduate form with the Director in room S-112 early in the final semester of graduate study.

Courses carrying undergraduate credit only are numbered in the 7- series; courses carrying both undergraduate and graduate credit are numbered in the 8- series; and courses carrying graduate credit only are numbered in the 9- series. Assistance in selection and registering in all courses is available in Room S-112 Science-Laboratory Building the W.S.C. Office, Phone Worcester 791-1405 or 756-5121.

ALL COURSES CARRY THREE SEMESTER HOURS OF CREDIT

No.	*Course Title*	*Instructor*	*Room*
FIRST PERIOD BEGINNING AT 8:30 A.M. DAILY			
SS9-51	Research in Education, Section A	Alfred F. Eddy	S-217
SS8-56	Teaching of Reading	To be announced	S-224
SS9-60	Laboratory Practicum in Remedial & Corrective Reading at the Elementary Level TIME: 8:30-11:10 A.M. 6 S. H.	J. Francis O'Mara	Conf. Hall
SS8-61	Principles & Practices in Guidance (Guidance 1)	Paul J. McCarron	S-227
SS9-63	Techniques of Counseling	Leonard F. Farrey	S-225
SS8-70	Introduction to Audio-Visual Methods & Materials	Paul Davis	A-110
SS9-80	Analysis & Evaluation of Current Educational Problems	George T. Joseph	S-211
SS9-87	Supervision in Today's Schools	Ruth Griffiths	S-226
SS9-82	Integrated Education	Manuel Zax	S-205
SS8-272	Library Cataloging & Classification, Part I	Vincent Piccolo	G-24
SS8-475	Social Problems in Today's World	Robert W. Goss	S-314
SS8-551	Workshop in Modern Math for Elementary School Teachers	Paul F. O'Neil	S-214
SS8-658	United States History 1876 to Present	Robert F. McGraw	S-126
SS9-777	Advanced Philosophical Foundations of Education, Section A	Joseph W Riordan	S-212
SS8-872	Plant World and Its Evolution	Paul A. Holle	S-132
SECOND PERIOD BEGINNING AT 9:55 A.M. DAILY			
SS8-43	Speech and Language Development	Rose D. Guerin	S-224
SS8-64	Tests and Measurements	Ruth Griffiths	S-226
SS9-67	Practicum in Counseling	Leonard F. Farrey	S-225
SS9-88	Organization & Administration of Elementary School	George T. Joseph	S-212
SS9-90	School Law	Paul J. McCarron	S-227
SS9-91	Analysis of Classroom Interaction	Manuel Zax	S-205
SS8-152	Books & Related Materials for Children	Mary T. Hayes	S-211
SS8-179	Modern Poetry	Kathryn R. O'Donnell	G-23
SS8-251	Music in the Classic Period	Abram Kaminsky	S-123

No.	*Course Title*	*Instructor*	*Room*
SS8-263	Painting as a Creative Expression	Jacqueline G. Casale	A-205
SS8-474	The Economics of Poverty	Robert W. Goss	S-314
SS8-496	Foreign Policy Decisions of the Nixon Administration	Francis L. Jones	S-126
SS8-576	Modern Math for Jr. High School Teachers	Evelyn Robinson	S-228
SS8-750	Introduction to Psychological Foundations of Education	Bernard J. Guarini	S-312
SS9-868	Case Studies in History Science — Workshop	Melvin Merken	S-301
SS8-959	Mycology, M.W.F. 9:55-11:10 T,Th 9:55-12:00	Anthony Thurston	S-128

THIRD PERIOD BEGINNING AT 11:20 A.M. DAILY

SS8-42	Articulatory Disorders in the Elementary School Child	Rose D. Guerin	S-224
SS9-52	Research in Education, Section B	Alfred F. Eddy	S-217
SS9-71	Techniques & Production of Instructional Materials	Paul Davis	A-110
SS9-81	Teaching Enriched Language Arts in Elementary School	Paul F. O'Neil	S-214
SS8-82	Teaching Music in Elementary School	Abram Kaminsky	S-123
SS8-83	Teaching Elementary School Science	Paul A. Holle	S-132
SS8-178	The Short Story	Kathryn R. O'Donnell	G-23
SS8-261	Art for the Classroom Teacher	Mary T. Dolphin	Art Room
SS8-497	Corporation Finance Security Analysis	Francis L. Jones	S-126
SS9-558	Modern Geometry for Jr. High School Teachers	Evelyn Robinson	S-228
SS9-657	Civil War and Reconstruction	Robert F. McGraw	S-205
SS9-753	Advanced Psychological Foundations of Education, Section A	Bernard J. Guarini	S-312
SS9-775	Introduction to Philosophical Foundations of Education, Section A	William K. Masterson	S-231
SS9-778	Advanced Philosophical Foundations of Education, Section B	Joseph W. Riordan	S-212
SS8-870	Principles of Organic Chemistry	Melvin Merken	S-301

EVENING CLASSES

SS9-66	Personnel & Placement Services	G. Flint Taylor	S-228
SS8-180	Romanticism and Its Influence on Modern Literature	Paul J. Edmunds	S-231
SS8-277	Administration of a School Library	William D. Joyce	G-24
SS8-579	Advanced Calculus 1	Robert W. Redding	S-225
SS8-660	History of Immigrant and Minority Groups in America	Albert G. Mitchell	S-126
SS9-754	Advanced Psychological Foundations of Education, Section B	Joseph A. Shea	S-227
SS8-776	Introduction to Philosophical Foundations of Education, Section B	Walter Busam	S-226
SS9-999	Intensive Teacher Preparation Workshop in Secondary Education, 8:30A.M.-2:30 P.M. 6 S.H.	Joseph P. Scannell, Coordinator John Dowling Assistant Coordinator	

Prospective enrollees must supply official transcripts confirming six credits in education as well as credits in their major fields on or before May 17, 1969. Interviews with prospective registrants by Joseph P. Scannell by appointment.

COURSE DESCRIPTIONS

SS9-51 Research in Education, Section A **3 sem. hrs.**

This course will stress the use of appropriate research methods in the selection and evaluation of data. It is designed to aid the graduate student in the preparation and understanding of research reports. Major areas of emphasis will include the nature of and criteria for evaluating research, library techniques and resources, selection and documentation, organization and format of a report, and necessary statistical concepts and methods of research. The student will be expected to demonstrate his knowledge of these in a term research study. Prerequisite—A Bachelor's degree from an accredited college.

Daily at 8:30 A.M. Alfred F. Eddy

SS8-56 The Teaching of Reading in Elementary Schools **3 sem. hrs.**

This course is designed to cover the function of reading in the modern school program, effective procedures for developing the basic reading skills, practical techniques for improving pupil competence in the reading-study skills of content areas and methods of diagnosing and correcting reading deficiences.

Daily at 8:30 A.M. To be announced

SS9-60 Laboratory Practicum in Remedial & Corrective Reading at Elementary Level **6 sem. hrs.**

Study will be made of the symptoms and causes of reading disabilities and the procedures which may be used to aid in their correction. Each graduate student will be required to diagnose and analyze a pupil's reading difficulties through formal and informal testing procedures. A remedial program will be initiated and carried out for the pupils in a clinical setting. Cases will be from grades three through six. A case history of the remedial pupil will be required. This will include initial and final testing results along with the remedial techniques used. A double period time block will consist of a seminar on the diagnostic and corrective procedures, following by a work period with the pupil under the supervision of the course instructor. Course prerequisites: 1. Three years teaching experience at the elementary level. 2. One basic course in the teaching of reading at the elementary school level. The course will carry six (6) semester hours graduate credit. Class size will be limited.

Daily at 8:30 A.M.–11:10 A.M. J. Francis O'Mara

SS8-61 Principles & Practices in Guidance (Guidance 1) **3 sem. hrs.**

This is an introductory course designed to provide the student with an understanding of the need, meaning, and scope of guidance services. The principles and practices involved in the following guidance areas will be considered: introduction and philosophy of guidance; understanding the individual and his needs; essential orientation activities for the student; collecting, recording, and evaluating data; interviewing and counseling; organization and

evaluation of guidance. The emphasis of the course will be placed upon the role of the classroom teacher in the guidance program. Note: This course or its equivalent is a prerequisite for all advanced course in guidance.
Daily at 8:30 A.M. Paul J. McCarron

SS9-63 Techniques in Counseling 3 sem. hrs.

This course is intended for teachers and others interested in guidance. Principles of counseling and the application of basic and advanced techniques to the counseling process will be included. Case studies and personal, educational, and vocational problems on the elementary, secondary, and college levels in counselor-situations will be presented.
Daily at 8:30 A.M. Leonard F. Farrey

SS8-70 Introduction to Audio-Visual Methods & Materials 3 sem. hrs.

This is an introductory course for the classroom teacher in the utilization of all types of audio-visual materials for improving instruction. By means of lecture, discussion, and demonstration students will learn the criteria in selection of materials, planning for their use, evaluation of methods, advantages and limitations of various materials, and implications of research. Each class member learns the operation of mechanical equipment as well as sources of audio-visual materials for the various curricula.
Daily at 8:30 A.M. Paul Davis

SS9-80 Evaluation and Analysis of Current Educational Problems 3 sem. hrs.

The children being educated in our classrooms today will live half their lives during the 21st Century. Presently, our educational system is being revolutionized with new curriculum approaches: educational television, team teaching, role playing techniques and new and creative approaches to design and development of school plant facilities. It will be the purpose of this course to dissect and closely examine these and other new approaches in education.
Daily at 8:30 A.M. George T. Joseph

SS9-87 Supervision in Today's Schools 3 sem. hrs.

This course is designed as an introductory course in supervision for teachers, school administrators, and supervisors at both the elementary and secondary school levels. Significant topics included in the course are: concepts of supervision; principles of supervision; organization for supervision; group process; techniques of supervision; and the evaluation and improvement of instruction, curriculum, and the supervisory program. Opportunity will be provided for concentrated study and application of the materials of the course to elementary, secondary, or special subject work. This course, or its equivalent, is a prerequisite for all advanced courses in supervision.
Daily at 8:30 A.M. Ruth Griffiths

SS9-92 Integrated Education **3 sem. hrs.**

Macrocosmic to microcosmic aspects of furnishing education for people racially and ethnically different from one another within society. Contemporary emphasis, from 1954 to present, including legislative, judicial influences, actions in North and South, viewpoints in other countries. Discussion of effect of integrated education on role of teacher and curriculum.

Daily at 8:30 A.M. Manuel Zax

SS8-272 Library Cataloging & Classification, Part 1 **3 sem. hrs.**

The principles and practices of cataloging library materials are studied and applied through laboratory experiences in the use of the Anglo-American Cataloging Code, the Dewey Decimal Classification and the Sears List of Subject Headings. Cataloging and classification are considered in the context of the organization of materials and the development of records in a school library.

Daily at 8:30 A.M. Vincent Piccolo

SS8-475 Social Problems in Today's World **3 sem. hrs.**

This course will examine social "deviancy" from the standpoint of a dynamic society. Among the many specific problems to be explored will be criminal and delinquent behavior, drug addiction and alcoholism, student unrest, political "activism", and societally inducted emotional disorders.

Daily at 8:30 A.M. Robert W. Goss

SS8-551 Workshop in Modern Math for Elementary Teachers **3 sem. hrs.**

The purpose of this course is to give the student a fundamental understanding of the concepts and techniques of arithmetic. Of major interest to the prospective and in-service elementary teacher, the course presents the modern approach to elementary mathematics which concerns not only "how" but also "why" certain arithmetic operations are performed. The workshop format allows for student participation in providing manipulative and other means for making plausible basic properties of the number system.

Daily at 8:30 A.M. Paul F. O'Neil

SS8-658 United States since 1876 **3 sem. hrs.**

This course will examine some of the great changes that occurred during this period, focussing in particular on the introduction of segregation, immigration and minority groups, the shift from isolation to internationalism, and efforts at reform.

Daily at 8:30 A.M. Robert F. McGraw

SS9-777 Advanced Philosophical Foundations of Education, Section A **3 sem. hrs.**

This course has the two-fold purpose of (1) studying and evaluating the contributions made by outstanding philosopher-educators both of the past but especially of the modern eras, and

(2) analyzing the basic philosophical issues and problems in education and society and the alternatives posed by the different philosophical systems and assumptions. The student is expected to read and analyze the original contributions of the major educational philosophers in order to determine to what extent a synthesis of viewpoint may be achieved. Prerequisites: Undergraduate credits in both Philosophy and in Philosophy of Education or equivalency.
Daily at 8:30 A.M. Joseph W. Riordan

SS8-872 Plant World and Its Evolution **3 sem. hrs.**

This course will include a survey of the plant kingdom, its evolution, and certain natural history and taxonomic considerations. The course and lectures will be directed towards expanding the background of those who have had a minimum of formal training in the biological sciences, and will be supplemented with appropriate demonstrations and examinations of selected living and/or preserved specimens.
Daily at 8:30 A.M. Paul A. Holle

SS8-43 Speech and Language Development **3 sem. hrs.**

Normal speech and language development and the processes enhancing or interfering with this behavior. Cultural and linguistics considerations. Emphasis on an understanding of speech and language development in individual children by a study of individual cases.
Daily at 9:55 A.M. Rose D. Guerin

SS8-64 Tests & Measurements **3 sem. hrs.**

This course considers the nature of measurement, its purpose and value in the learning situation, and the types of measuring techniques to be employed. Attention is given to the development of certain statistical concepts, facility in the selection and use of measuring instruments, and in the interpretation of the data secured.
Daily at 9:55 A.M. Ruth Griffiths

SS9-67 Practicum in Counseling **3 sem. hrs.**

This course is designed to give advanced graduate students opportunity to put into practice the various theoretical aspects of academic counseling and guidance which they have learned in previous courses. Registration is restricted to those concentrating in Guidance who have completed 3 guidance courses including Techniques of Counseling. Students will review the major areas of counseling theory, they will be supervised while giving individual academic counseling to junior and senior high school students, finally they are aided in assessing the practice.
Daily at 9:55 A.M. Leonard F. Farrey

SS9-88 Organization and Administration of Elementary School **3 sem. hrs.**

This course will emphasize the many facets of elementary school administration and organization. The role of the principal as an

administrator in the larger setting of present day education will be stressed. Specifically, the course will deal with the principal's role in organizing for teaching and learning, administering pupil personnel and special services, and integrating school and community life.
Daily at 9:55 A.M. George T. Joseph

SS9-90 School Law **3 sem. hrs.**
This course is designed to acquaint administrators and teachers with school laws affecting public education in the United States, with particular emphasis upon the state and community laws of Massachusetts. Attention will be given to such topics as legal status of school committees, contractual rights and obligations of teachers, the suspension and expulsion of pupils and school attendance.
Daily at 9:55 A.M. Paul J. McCarron

SS9-91 Analysis of Classroom Interaction **3 sem. hrs.**
History of classroom observation methods, applying to verbal and nonverbal teacher and student behaviors, with emphasis placed on verbal interaction. Participants will learn Flanders system and apply it to tape recorded samples of their teaching which they will bring to summer sessions. Meetings will include workshop approach, involving live and taped classroom interaction, skill sessions, role playing, construction of matrices, analyses of matrices, tests for reliability.
Daily at 9:55 A.M. Manuel Zax

SS8-152 Books & Related Materials for Children **3 sem. hrs.**
This course is designed to broaden teachers' and school librarians acquaintance with literature suitable for elementary school children and to present effective procedures for fostering a love of good reading. Topics covered will include the classics, current fiction and non-fiction, the Newberry and Caldecott Awards, effective techniques of storytelling, interpretation of verse for children, illustrators of children's books, and sources of display materials.
Daily at 9:55 A.M. Mary T. Hayes

SS8-179 Modern Poetry **3 sem. hrs.**
A deepening of one's appreciation of both the structure and decoration of poetry should be the result of this penetrating study of Contemporary Poetry. Studies will be centered on recent British and American poetry with special attention being given to the works of Hopkins, Yeats, Arden, Eliot, Jeffers, and Crane. Assigned readings will supplement the lectures.
Daily at 9:55 A.M. Kathryn R. O'Donnell

SS8-251 Music in the Classic Period **3 sem. hrs.**
This course will be structured to reach students with little musical background as well as those with broad musical knowledge. Guided listening through recordings and tapes will lead to greater understanding and enjoyment of the masterworks, including opera,

of one of the greatest periods in music history and of the three greatest composers of this period: Haydn, Mozart, and Beethoven.
Daily at 9:55 A.M. Abram Kaminsky

SS8-263 Painting as a Creative Expression **3 sem. hrs.**

A study of the representative schools of painting with particular attention to the many personal applications which this study would promote. Projects will include using the same techniques as the artists who are discussed. Students will be expected to provide some of the materials to be used.
Daily at 9:55 A.M. Jacqueline G. Casale

SS8-474 The Economics of Poverty **3 sem. hrs.**

Although poverty is technically defined as having a very low annual income, for many people it is also a chronic state of failure, disability, dependency, defeat, and inability to share in most of society's major material and psychic benefits. This course will examine these phenomena and the dangers of the continuance of this deprived state, especially where it is reinforced by many institutional arrangements in society, including some which are supposedly designed to alleviate the problem.
Daily at 9:55 A.M. Robert W. Goss

SS8-496 Foreign Policy Decisions of the Nixon Administration **3 sem. hrs.**

The course will consist of lectures, reading and discussion of the following problems: National Defense, Foreign Economic Policy, Political Decisions, and Formulation and Execution of Foreign Policy.
Daily at 9:55 A.M. Francis L. Jones

SS8-576 Modern Math for Jr. High School Teachers **3 sem. hrs.**

This course is intended to provide the junior high school teacher with the mathematical concepts which will help him to convey the nature and spirit of mathematics from the current point of view. The course will begin with the study of fields, sets and the algebra of sets and functions. It will go on to the properties of the various subsystems of the real and complex numbers.
Daily at 9:55 A.M. Evelyn Robinson

SS8-750 Introduction to Psychological Foundations of Education **3 sem. hrs.**

This course covers the theoretical aspects of psychology for the classroom teacher. It includes a systematic analysis of the major schools of psychology and a study of the effects of heredity and environment. Reading in the following areas will be required; results of research on growth and development, theories of intelligence, concepts in measurement and evaluation, individual differences in capacity and achievement, and learning theory.
Daily at 9:55 A.M. Bernard J. Guarini

SS9-868 Case Studies in History of Science Workshop **3 sem. hrs.**

Participants will explore the unique contributions which the history of science can make to the study of science. A variety of sources will be used, including case histories, original scientific papers, and biographies of scientists. Classical laboratory experiments may be carried out. The potential of these sources for conveying a better understanding of science and scientists will be evaluated. The course is intended for non-science majors as well as science majors.

Daily at 9:55 A.M. Melvin Merken

SS8-959 Mycology **3 sem. hrs.**

This course will consider the mycological (fungal) world from morphological, cytological, physiological, and evolutionary viewpoints. Lecture and laboratory sessions will be directed towards the needs and interests of the educator, as well as those in allied fields, who wish to acquaint themselves with the several fungal genera and/or species of economic importance to man as well as those having significant life cycles. Standard experiments in mycology will be conducted—including techniques of pure culture.

Daily at 9:55 A.M. Anthony Thurston

SS8-42 Articulatory Disorders in the Elementary School Child **3 sem. hrs.**

Introduction to the common problems of articulation exhibited by the elementary school child; gives the teacher a rudimentary knowledge of the speech mechanism and its sounds in order to assist children who are deficient in speech.

Daily at 11:20 A.M. Rose D. Guerin

SS9-52 Research in Education, Section B **3 sem. hrs.**

This course will stress the use of appropriate research methods in the selection and evaluation of data. It is designed to aid the graduate student in the preparation and understanding of research reports. Major areas of emphasis will include the nature of and criteria for evaluating research, library techniques and resources, selection and documentation, organization and format of a report, and necessary statistical concepts and methods of research. The student will be expected to demonstrate his knowledge of these in a term research study. Prerequisite—A Bachelor's degree from an accredited college.

Daily at 11:20 A.M. Alfred F. Eddy

SS9-71 Techniques & Producation of Instructional Materials **3 sem. hrs.**

This course is designed to enrich the teacher's classroom performance by developing techniques of visual presentation of subject materials. Pictorial presentations of instructional materials through non-artistic skills will be developed. The techniques apply at all levels of instruction, but the subject matter will be related to the

specific interest of each teacher. Students will be expected to provide some of the materials consumed in producing the instructional materials.
Daily at 11:20 A.M. Paul Davis

SS9-81 **Teaching Enriched Language Arts Units in Elementary Grades** **3 sem. hrs.**
Concentration will be upon those areas of the language program which call for a creative response from the pupils; namely, poetry, creative writing, reporting, and vocabulary building. Other areas would be included as the need arises. Motivation and planning using music, marionettes and puppets, tapes, and other innovative means will be demonstrated.
Daily at 11:20 A.M. Paul F. O'Neil

SS8-82 **Teaching Music in Elementary School** **3 sem. hrs.**
The place of music in the elementary curriculum with emphasis on the child voice, selection and presentation of rote and listening songs needed by the classroom teacher for guiding growth in rhythm, notational, and listening experiences, survey of song series, recordings and other audiovisual materials used in the elementary school music program.
Daily at 11:20 A.M. Abram Kaminsky

SS8-83 **Teaching Elementary School Science** **3 sem. hrs.**
This course is designed to encourage and strengthen the teaching of science in the elementary (primary and intermediate) grades. Although the several methods of teaching will be stressed including instructor and student demonstrations and experiments, the following additional areas will be explored; objectives and place of science in the elementary curriculum; techniques of helping children learn science; organization of a science program; and such special problems as obtaining, construction, and using materials, the selection of texts and reference books, and availability of pertinent visual aids.
Daily at 11:20 A.M. Paul A. Holle

SS8-178 **The Short Story** **3 sem. hrs.**
This course is designed to provide a study of the development of the short story as a literary form, and an analysis of its techniques through a study of examples from the works of world writers. Practice in interpretative analysis and critical evaluation is provided.
Daily at 11:20 A.M. Kathryn R. O'Donnell

SS8-261 **Art for the Classroom Teacher** **3 sem. hrs.**
In this studio workshop students will enrich their experiences in dealing with the art materials, skills, and techniques valuable to the classroom teacher. A combination lecture, informal discussion, and activity course will provide individual and group work in such areas as basic drawing, painting, lettering, and modeling. Exhibits, reproductions and slides will be used as enrichment material.
Daily at 11:20 A.M. Mary T. Dolphin

SS8-497 Corporation Finance Security Analysis **3 sem. hrs.**

A course in the basic principles of Investment, Organization of "Big Business", the Mechanics of Investment, Investment Counseling and Analysis of Current and Future Market Trends. Mutual Funds, Psychology of "Bulls" and "Bears", Steps in Buying a Common Stock, and Validity of Stock Market Yardsticks.

Daily at 11:20 A.M. Francis L. Jones

SS9-558 Modern Geometry for Jr. High School Teachers **3 sem. hrs.**

This course is designed to help the elementary teacher in the modern programs of mathematics in the elementary grades. This course is introduced as a study of space and locations in space. Other concepts such as curve, point, line segment, angle and ray are also discussed. The language of geometry used will involve the language of sets. No effort will be made to develop the system of Euclidean geometry in the logical and formal fashion that we know today. Instead, there will be an intuitive approach involving a description of certain undefined terms, well-stated definitions, and a discussion of postulates.

Daily at 11:20 A.M. Evelyn Robinson

SS9-657 Civil War and Reconstruction **3 sem. hrs.**

A thorough examination of the whole Civil War era, this course will cover the period from the Compromise of 1850 to the disputed election of 1876, paying particular attention to slavery, sectionalism, Lincoln's rise to power, the war itself, and Reconstruction. Special reference will be made to the vast literature of this era.

Daily at 11:20 A.M. Robert F. McGraw

SS9-753 Advanced Psychological Foundations of Education, Section A **3 sem. hrs.**

In this course, class-members will study and evaluate the role of those environmental, mental, and extra-mental forces which motivate all learners to utilize fully and effectively their capacities, aptitudes, and attitudes. It includes a systematic analysis of the major schools of psychology with special attention focussed on the contemporary schools. Attention is given to the teachers' role in the learning process and special emphasis will be centered on the application of these principles to specific classroom situations. Prerequisite: 9 sem. hrs. undergraduate credit in General Psychology and Educational Psychology or their equivalency.

Daily at 11:20 A.M. Bernard J. Guarini

SS8-775 Introducation to Philosophical Foundations of Education, Section A **3 sem. hrs.**

This course is an historical approach to the study of educational thought and includes an examination of primary educational concepts which have evolved through Western thought to the present day. Selections from the great documents in educational

thought are studied in relation to the historical period in which they were produced. The student is expected to read and analyze the original contributions of the major educational philosophers.
Daily at 11:20 A.M. William K. Masterson

S9-778 Advanced Philosophical Foundations of Education, Section B **3 sem. hrs.**

This course has the two-fold purpose of (1) studying and evaluating the contributions made by outstanding philosopher-educators both of the past but especially of the modern eras, and (2) analyzing the basic philosophical issues and problems in education and society and the alternatives posed by the different philosophical systems and assumptions. The student is expected to read and analyze the original contributions of the major educational philosophers in order to determine to what extent a synthesis of viewpoint may be achieved. Prerequisites: Undergraduate credits in both Philosophy and in Philosophy of Education or equivalency.
Daily at 11:20 A.M. Joseph W. Riordan

SS8-870 Principles of Organic Chemistry **3 sem. hrs.**

An introduction to organic chemistry. Special emphasis will be placed upon the study of group properties as interpreted by modern electronic theory and molecular structure. A representative list of experiments and syntheses will be performed in the laboratory. A previous knowledge of general chemistry is desirable but not essential.
Daily at 11:20 A.M. Melvin Merken

SS9-66 Personnel & Placement Services (Guidance VI) **3 sem. hrs.**

This is a required course for personnel workers in the public schools. This course will introduce occupational, educational, and personnel career-studies for appraisal and evaluation; statistical analysis of job needs and opportunities; use and function of school and out-of-school agencies including group and individual interviewing techniques; local, state, and federal job studies and opportunities; clinical procedures; a full review of the most important aspects of personnel work on the elementary, secondary and college levels. Setting up and appraising personnel programs on all levels will be stressed and studied.
Evenings; Mon., Tues., Thurs. at 7:00 P.M. G. Flint Taylor

SS8-180 Romanticism and Its Influence on Modern Literature **3 sem. hrs.**

This course will trace the rise of romanticism in English Literature through an observation of the chief poets (Wordsworth, Coleridge, Byron, Shelley, Keats); and will concentrate on the influence of these poets on modern literature.
Evenings; Mon., Tues., Thurs., at 7:00 P.M. Paul J. Edmunds

SS8-277 Administration of a School Library **3 sem. hrs.**

Library science students in this course will cover the theory and practice of organizing and administering a library of materials and a program of service fundamental to the achievement of educational goals in elementary, Junior High and Senior High Schools. The function, maintenance, control, planning, and equipping of a school library will be stressed along with the relationship between the librarian and school administration and the instructional program.

Evenings; Mon., Tues., Thurs. at 7:00 P.M. William D. Joyce

SS8-579 Advanced Calculus 1 **3 sem. hrs.**

A basic graduate course in Math. Topics covered include; sets, topology of the Real Line; Continuity, Mean Valve Theorem, L'Hospital's Rule, and Integration. Prerequisite; equivalent of 4 semesters of calculus, or permission of the instructor or head of the department.

Evenings; Mon., Tues., Thurs. at 7:00 P.M. Robert W. Redding

SS8-660 History of Immigrant and Minority Groups in America **3 sem. hrs.**

This course will consider the immigrant as a force in the shaping of modern America. Major attention will be focussed on the great migration of the nineteenth century, 1815-1914, with special emphasis on such factors as their economic, political and social impact, and the nativist reaction. Some attention will also be given to present day minorities in the context of modern American history, 1876 to present. Readings, lectures and discussions will constitute the bulk of the course work.

Evenings; Mon., Tues., Thurs. at 7:00 P.M. Albert G. Mitchell

SS9-754 Advanced Psychological Foundations of Education, Section B **3 sem. hrs.**

In this course, class-members will study and evaluate the role of those environmental, mental, and extra-mental forces which motivate all learners to utilize fully and effectively their capacities; aptitudes and attitudes. It includes a systematic analysis of the major schools of psychology with special attention focussed on the contemporary schools. Attention is given to the teachers' role in the learning process and special emphasis will be centered on the application of these principles to specific classroom situations. Prerequisite: 9 sem. hrs. undergraduate credit in General Psychology and Educational Psychology.

Evenings; Mon., Tues., Thurs. at 7:00 P.M. Joseph A. Shea

SS8-776 Introduction to Philosophical Foundations of Education, Section B **3 sem. hrs.**

Students in this course will make an intensive examination and critical evaluation of the major philosophies in Western Culture which have given direction and meaning to educational theory and practice in historical periods, including the Modern Era, in which

they exerted major influences. The course is the equivalency to undergraduate credits in both Philosophy and Philosophy of Education.
Evenings; Mon., Tues., Thurs. at 7:00 P.M. Walter Busam

SS9-999 **Intensive Teacher Preparation Workshop in Secondary Education (Including observation, demonstration, and Practice Teaching classes** **6 sem. hrs.**

The primary purpose of this program is to enable prospective secondary school teachers to meet the state certification requirements in student teaching. Student teachers in this intensive program will meet five hours a day for six weeks. The class day will include demonstration teaching by master teachers and observation and practice teaching by the student teacher from 8:30 A.M. until noon. The secondary school pupils will be dismissed about noon, and formal classes, conferences, and preparations will be scheduled in the afternoon with the Coordinator and master teachers available for consultation and assistance. Classes will be opened to a limited number of student teachers and admission to the program is selective. Admission to the program is restricted to those holding a bachelor's degree or who will receive the degree in June, 1969 and have had 30 semester hours in their major fields of mathematics, biology, physics, English or French plus six hours of education credits. The Coordinator may waive, in part, some of the prerequisites.

Applications for admission, accompanied by official transcripts of all courses taken beyond high school, must be received by the Director of the Program of Continuing Studies at Worcester State College not later than June 7, 1969. It should include a resume of your educational and teaching experience and identify the number of semester hours of credit in your major field(s). If it be deemed necessary, applicants might be invited to confer with the Coordinator prior to official acceptance into this Secondary Education Workshop.
Daily, 8:30 A.M.–2:30 P.M. Joseph P. Scannell, Coordinator
John Dowling, Assistant Coordinator

FOR FURTHER INFORMATION CONCERNING YOUR PROGRAM OF STUDY, CONTACT:

MR. JOHN F. EAGER, Acting Director
Program of Continuing Studies
Worcester State College
Worcester, Massachusetts 01602